

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) Method for analyzing the ~~calculating changes in~~ movement of a selected position on the outer surface of a heart from an acceleration signal recorded by a motion sensor fastened to, or immediately below, said selected ~~position.~~ position on the outer surface of the heart, and registering the movements of the heart in this position in three directions, so that the acceleration signal describes the acceleration of said selected position in three dimensions over time, wherein said selected position is in an area of the heart that is supplied by a selected vessel, the method comprising analyzing the recorded acceleration signal ~~to calculate changes in movement of said selected position that correlates to ischemia in said area of the heart~~ by determining a frequency distribution of the recorded acceleration signal and comparing the determined frequency distribution with a reference frequency distribution recorded previously.

2. (Original) Method according to claim 1, wherein the method is performed post operatively in connection with a bypass operation.

3. (Currently Amended) Method according to claim 1, wherein said area of the heart is a part of the heart muscle which after an operation receives blood from a ~~revascularised~~ revascularized coronary artery.

4. (Original) Method according to claim 1, wherein the motion sensor is designed by means of its dimensions and fastening devices to be removable from the position without requiring surgical intervention.

5. (Original) Method according to claim 1, wherein the motion sensor comprises an accelerometer that is sensitive to acceleration in three directions.

6. (Original) Method according to claim 1, wherein the motion sensor comprises a gyroscope for measuring rotary movement at the point of attachment of the sensor.

7. (Original) Method according to claim 1, wherein the registered movement is transmitted to a calculation unit located externally of the patient for performing said analysis.

8. (Original) Method according to claim 1, wherein the motion sensor is incorporated into a temporary pacemaker electrode.

Claims 9-22 (Cancelled).

23. (Previously Presented) Method according to claim 1, wherein the method further comprises integrating the acceleration signal to reconstruct a speed and a position of said selected position on the surface of the heart.

24. (Previously Presented) Method according to claim 1, wherein the motion sensor is small enough to allow it to be fastened to, or immediately below, said selected position on the surface of the heart in that the motion sensor is based on thin films of piezoelectric material laid on a supporting structure.

25. (Currently Amended) A system for detecting changes in the movement of the heart, the system comprising at least one motion sensor with a sensitivity in three directions and designed to be fastened to, or immediately below, a selected position on the outer surface of an area of the heart, and where the sensor is designed to provide an acceleration signal that ~~reflect~~ reflects the heart movement over time ~~activity~~ to a

calculation unit of the system for analyzing the recorded acceleration signal, the calculation unit being configured to determine frequency distributions of received acceleration signals and compare determined frequency distributions with a reference frequency distribution recorded previously ~~to calculate changes in movement of said selected position that correlates to ischemia in said area of the heart.~~